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ABSTRACT

The benefits of clustering organizations into types were discussed, and a method for clustering life insurance agencies by climate profiles was presented. Clusters of life insurance agencies were identified on the basis of manager, assistant manager, and already-employed ("old") agents' climate perceptions. Agency success, including production of old agents, production ranking of agencies, and success probability (turnover and production) of newly contracted agents were examined in the different clusters. The effects of climate as a moderator of new agent aptitude--new agent performance relationships were also explored. For each agency success variable and in the moderator variable analyses, some differences between agency clusters were found. Implications of these results for a taxonomic approach to defining organizations, for research on organizational climate and for personnel selection practices were discussed. (A five-page list of references is included.) (Author)

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ORGANIZATIONAL TYPE, ORGANIZATIONAL SUCCESS, AND THE PREDICTION OF INDIVIDUAL PERFORMANCE

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BENJAMIN SCHNEIDER

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The benefits of clustering organizations into types were discussed and a method for clustering life insurance agencies by climate profiles was presented. Clusters of life insurance agencies were identified on the basis of manager, assistant manager, and already-employed ("old") agents' climate perceptions. Agency success, including production of old agents, production ranking of agencies and success probability (turnover and production) of newly contracted agents, was examined in the different clusters. The effects of climate as a moderator of new agent aptitude - new agent performance

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relationships were also explored. For each agency success variable and in the moderator variable analyses, some differences between agency clusters were found. Implications of these results for a taxonomic approach to defining organizations, for research on organizational climate and for personnel selection practices were discussed.

Organizational Type, Organizational Success, and the Prediction of Individual Performance[1]

Benjamin Schneider[2]

University of Maryland

This paper is one of a series of research reports on the assessment of the climate of life insurance agencies (Schneider & Bartlett, 1968, 1969, 1970; Schneider, 1972). The present report has three major purposes: (1) to research the feasibility of clustering life insurance agencies into types when the basis for clustering is a measure of organizational climate as perceived by agency managers, assistant managers, and ("old") agents; (2) to explore criterion performance differences in different agency types when the criteria are based on "new" agent performance (people who had supplied no climate data), as well as other indices of organizational performance; and (3) to explore the effects of climate type as a moderator variable in the prediction of newly contracted agent success.

Clustering Organizations: Structure vs. Perception

Given the psychologist's emphasis on multi-dimensional description of individual characteristics, it is not surprising that researchers from both a motivational theory point of view (Likert, 1967; Litwin & Stringer, 1968; Stern, 1970) and a more descriptive-empirical vantage point (Friedlander & Greenberg, 1971; Schneider & Bartlett, 1968) have chosen the multi-dimensional approach to describing work organizations. Indeed, not only work organizations have been described in multi-dimensional terms. Educational settings (Stern, 1970), psychiatric wards (Moos & Houts, 1969), camps (Gump, Schoggen, & Redl, 1957) and

student organizations (Pindikyan & Sells, 1966) have also been multidimensionally described. It seems as if Forehand and Gilmer's (1964) suggestion to adopt strategies used in studying individuals to the study of organizations has been adopted.

What is surprising is that given the effort expended in identifying the dimensional characteristics of organizations, more research does not exist on clustering organizations into types (Frederiksen, Jensen, & Beaton, 1972). Roops (1943) argued that every person belonged to a type (what he called an "ulstrith") and that by knowing the type he belonged to, accurate hypotheses about behavior could be made. Some beginning in this direction of clustering individuals has been made by Owens (1971) and his colleagues using bio-data. Only recently, however, have there been attempts to cluster work organizations and these have generally utilized structural characteristics (size, technology, number of hierarchical levels) as the basis for analysis (c.f. Inkson, Payne, & Pugh, 1967).

The assessment of organizational characteristics has occurred at both the structural and perceptual levels. At the structural level, Astin and Holland (1961), and Pugh and his associates (c.f. Pugh, Hickson, Hinings, & Turner, 1968) have carried out careful and productive work in developing reliable procedures for the assessment of structural characteristics. The structural research has resulted in causal links being established between structural characteristics of organizations (size, technology, hierarchy) and measures of organizations based more on the perceptions of the organization's psychological atmosphere; the perceptions of climate (Astin, 1963; Dieterly & Schneider, 1974; Payne, Pheysey

& Pugh, 1971). Recently, Inkson, et al. (1967) have been able to group or cluster British organizations on the basis of their structural similarities and differences.

At the perceptual level, little research exists on clustering work organizations. Stern (1970) has clustered colleges and universities but similar research on industrial organizations could not be found. Such research would be important to have because of the assumption that what people perceive in their work environment is important in understanding employee behavior. Even in the Pugh, et al. (1968; see Payne, 1973) research, an assumption was made that structural characteristics somehow primarily relate to behavior to the extent that they are psychologically meaningful to, or enter the psychological world of, employees. Schneider (1974) has recently suggested that the mechanism by which perceptions of the work world affect behavior is that structures and events serve as cues to employees about what is considered to be appropriate behavior; that structure and events are cues as employees form concepts about their organizations.

In the present paper, assumptions were made about perception-based measures of organizations. First it was assumed that employee perceptions of organizations constitute valid information about the characteristic functioning of the perceived organization. This assumption did <u>not</u> further include the idea that all people in an organization would agree in their perceptions; the president of a company works in a different world than his assembly-line employees. Data already exists on this question, showing intra- but not inter-position agreement on climate perceptions (Schneider & Bartlett, 1970; Schneider, 1972).

Second, it was assumed that employee perceptions of their organization are not necessarily strongly related to their reported satisfaction with the outcomes they experience as a result of being employed there. Some have argued (c.f. Guion, 1973; Johanneson, 1973; Payne, 1973) that perhaps perceived climate is simply another term for job satisfaction. Schneider (1974) has argued, however, that climate and satisfaction have been confounded due to poor conceptualization, and the frequently inadvertent use of an inappropriate unit of analysis of the individual, in climate research. Payne (1973) has made a similar argument, citing as examples of such research those by Pritchard and Karasick (1973), and George and Bishop (1971).

Schneider and Snyder (1974) have recently shown that climate scores and satisfaction scores are not at all necessarily correlated, but that for some people in some situations, they are. The Schneider and Snyder (1974) research related satisfaction scores from the Job Descriptive Index (Smith, Kendall, & Hulin, 1969) and Alderfer's (1972) concepts of Existence, Relatedness and Growth satisfaction (see Schneider & Alderfer, 1973) to climate, as measured by the same climate measure used in the present study. The correlations between climate and satisfaction were generally around 30; the two satisfaction measures were correlated in the 50-60 range.

The third assumption was that regardless of the basis, structural or perceptual, for clustering organizations it is as important to identify organization types as to identify types of individuals.

Clustering Organizations : Some Implications

Clustering organizations has implications for personnel strategies ranging from personnel selection to organizational change. The underlying

motivation of the present research effort, for example, was to identify types of organizational situations which might differentially predict new employee success directly, or moderate the relationships existing between some predictor-criterion pairs of variables (Schneider & Bartlett, 1968). It was felt that since personnel selection researchers are continually admonished to "revalidate your test as you move from situation to situation" - if one knew which situations moderate the validity of which tests, then some of the elements in Dunnette's (1966) modified selection model might be filled in. In Guion's (1965) terms: "And there is the rub! If the empirically observed correlation stems from unrecognized situational variables, then any change in the situation may destroy the validity" (p. 130). But clearly not only selection research would benefit from identifying organization types.

For those interested in organization change, strategies for change could be based on climate; i.e., what is now called an organizational diagnosis could be developed to the point where normative data on a wide range of organizations would be available. Diagnosis of a new organization might result in locating that organization in a matrix of known organization types; known to the extent that previous experience in those types of organizations had revealed effective strategies for organization change.

Theoretically, data on organization types would have implications for motivation theorists in organizations who have been the most explicit commentators about the impact of the organization on the individual. From the macro postulations of Argyris (1957) and McGregor (1960), to the more individually oriented theories of Vroom (1964) and Porter and

Lawler (1968), the influence of the behavior setting on organization members is stressed. Recently, Dachler and Mobley (1973) have made an explicit connection between the climate of an organization and the capability of the Valence-Instrumentality-Expectancy (VIE) theories of motivation to predict individual behavior. They suggested that the climate in the organization (defined as the degree of actual performance -reward contingencies in a work environment) may moderate the relationships found between the cognitive components of VIE theory and actual behavior. Schneider and Olson (1970) have presented some data to support such an hypothesis.

Given these arguments as background, the purposes of the present research were to:

(1) Explore a method for examining the extent to which life insurance agencies tend to cluster into homogeneous clusters when the clusters are attempted on the basis of a measure of perceived agency climate.

(2) Explore differences in outcome variable performance between heterogeneous clusters.

(3) Examine the moderating effects of climate on the predictor -criterion relationships obtained for newly contracted agents.

Method and Procedures

Subjects: Cluster Analyses

The unit of analysis for this part of the research was the organization.

The organizations were 168 life insurance agencies from an insurance company with agencies in almost every state. Data to be reported were based on responses to the Agency Climate Questionnaire (ACQ; see below) by 132 agency managers (there is only one agency manager); 350 assistant agency managers representing 134 agencies, and 368 already employed ("old") agents representing 117 agencies. Agent perceptions of climate were obtained from "successful, fulltime" agents only (generally those producing above $500,000 face-value ordinary life insurance). The response rate to the ACQ with two follow-ups was 78% with little difference between the three groups. It may be of interest to note that all questionnaires were completed with the names of respondents. The project, however, was presented as a research project.

Subjects: Moderator Analyses

In the moderator variable analyses, individual agents contracted by the agencies after the collection of the climate data were the unit of analysis. Here N = a maximum of 914 across all agencies; the sample in each cluster of agencies will be reported.

The Climate Measure

The Agency Climate Questionnaire (ACQ) is an 80 item, behaviorally descriptive measure with six factor-analytically derived dimensions similar to those found in other climate research (Campbell, et al., 1970). The development of the measure is described in detail in Schneider and Bartlett (1968, 1970). The factors are described as follows:

(1) Managerial support. This factor represents a personal

orientation of the manager for his staff and agents; treating his employees as people. (support)

(2) Managerial structure. This factor is oriented to selling; task orientation. (structure)

(3) Concern for new employees. At the positive end, a description of an agency that shows concern for the selection and training of a new agent. (concern)

(4) Intra-agency conflict. Refers to the presence of in-and out-groups within the agency. (conflict)

(5) Agent independence. A high score on this factor describes an agency with agents who tend to go about their own work and who do not pay much attention to the agency. (autonomy)

(6) General Satisfaction. A high score here describes agencies in which agents are seen as having extra -work interests and as being satisfied with the agency and agency management. (morale)

The scale internal consistency reliability estimates for these factors (corrected by the Spearman-Brown method) range from about .55 (autonomy) to .90 (support) at the individual level of analysis. Generally speaking, manager's perceptions of climate indicate more of everything except conflict; agent's perceptions suggest consistently loss of everything except conflict, and assistant manager perceptions are someplace in-between.

In previous papers, Schneider and Bartlett (1970), and Schneider (1972), showed that in addition to the consistent mean differences found between

role occupants in climate perceptions, there was little inter-role correlation in perceptions. Therefore, the data for each agency in the present study are presented for old agents, assistant managers, and managers.[3]

All climate data were transformed to standard scores (Z-scores) using the agency as the unit of analysis. Thus, first all assistant manager and old agent perceptions were averaged for each agency; then the averages across all positions in all agencies were converted to Z scores. It was felt that this procedure would help correct for biases resulting from the fact that there were 368 old agents, but only 134 managers. The Z scores should thus be an accurate portrayal of the "typical" agency relatively uncontaminated by size of sample. The pooling of scores within positions is based on data presented by Schneider and Bartlett (1970), showing within-position agreement on climate perceptions with the ACQ.

Criterion Data - New Agents

Turnover and production data for each of 914 newly contracted agents was obtained (when possible) one year after contract. For each of the clusters of agencies, turnover, production, and a joint turnover/production criterion were calculated. Turnover success was defined as staying on the job 12 months. Production figures are presented in dollars of ordinary life insurance sold. The turnover/production criterion was calculated by defining success as staying 12 months and selling more ordinary life insurance than the median of those staying 12 months (an industry-wide index of success). In the cluster analyses, the criteria

are treated as organizational level data - turnover rate or average production per new agent. In the moderator analyses the criterion data are treated at the individual level.

Criterion Data - Agency

Success with new employees is the focus of the present paper, but it is only one index of organizational success. For this reason, production figures for agencies are presented which do not include new agent production. Two agency indices were calculated: (1) The average production rank of the agencies in each cluster for the years 1966-1968 (agency production rank from year to year is a highly reliable figure with $\bar{r}_{tt} = .95$); (2) The average per agent production for the agencies in each cluster. The first index, production rank, is not corrected for the size of the agency; the second index, average production, was calculated by taking the gross ordinary production figure for an agency and dividing it by the number of agents in that agency. The average of each agency average in a cluster was then calculated. The "typical" agency has about 15 agents producing premiums.

Analytic Scheme: Cluster Analyses

The Ward and Hook (1963) procedure for clustering profiles was used. Owens (1971) used the technique with success in identifying types of individuals based on bio-data, and his description of the procedure is instructive: "To identify subjects (agencies) with comparable patterns of prior experience (climate) we have factored their bio-data (ACQ) responses; profiled each subject on the resulting dimensions; obtained a matrix of the distances between each profile and each other; hierarchi-

cally grouped the profiles into 'families' according to the method described by Ward and Hook (1963) ... (p. 993)."

The Ward and Hook procedure reduces the original number of profiles from n to n-1, n-2, etc., so that each successive cluster of agencies (individuals, groups, objects) hopefully has maximum within cluster homogeneity. One of the benefits of the Ward and Hook procedure is the "cost" index it provides to be used in deciding when to stop clustering. This index indicates the error associated with successive clustering. A sharp increase in error indicates that the set of clusters formed by the procedure may no longer have acceptable internal consistency.

This problem is a result of the non-iterative nature of the process, and the fact that the Ward and Hook process attempts to assign each profile to a cluster. Once pairs of profiles have been made by the minimum-distance grouping rule, they may not be separated in subsequent stages of clustering. However, an iterative procedure that can be applied to Ward and Hook's output has been developed, called the affirmation program (Schoenfeld, 1972).[4]

The affirmation program assumes that the final profile for each cluster obtained with the Ward and Hook procedure is a good approximation of the best solution. However, because of the non-iterative manner in which profiles are clustered in the Ward and Hook procedure, it is possible that two (or more) profiles grouped together at an early stage of clustering do not really belong together after all clusters have been formed. For example, suppose at t_1 profile A and B are grouped together and Y and Z are grouped together. At t_2 the A, B and Y, Z

clusters are, in turn, clustered. At t_2 two other pairs arranged at t_1, C, D and E, F, are also clustered. In fact, Z may fit better with CDEF than with ABYZ; Z may be a misfit. On the other hand, Z may not really fit ABXZ or CDEF very well at all; it may be an isolate which, if included in a cluster, would increase within-cluster heterogeneity. One other possibility is that Z fits ABXZ and CDEF equally well; such an overlap would decrease between cluster heterogeneity. Affirmation thus identifies misfits, isolates and overlaps resulting in increased within-cluster homogeneity and between-cluster heterogeneity.

The development of the affirmation procedure increases the confidence one can place in clusters based on Ward and Hook's procedure and improves on the already positive evaluation Borgen and Weiss (1971) gave the procedure in their review of cluster analysis techniques. They found that Ward and Hook does well in creating clusters which have good discriminability, and that results obtained are replicable. In addition, some validity studies (where the various procedures are required to reproduce known clusters) showed the Ward and Hook process to be among the most effective.

Three cluster analyses and three affirmations were processed, one each for agency climate based on manager, assistant manager and old agent perceptions of their organization.

Moderator Analyses

Within each cluster, relationships between AIB and the dual criterion are presented by using expectancy tables. Correlation coefficients are also presented, but they should be interpreted with great care because:

1. The AIB was used in selecting the new agent population resulting in a restriction of range problem. The restriction of range problem in predicting success with the AIB has been presented by Peterson and Wallace (1966). Briefly, the problem is more than direct restriction in the range of AIB scores, but indirect as well. Further, there is potential criterion contamination through a manager knowing his new agents' score. In the present study, direct restriction of range took the following form: The company administered over 10,000 AIBs, hiring about one in three who passed the test (about half the applicants pass the AIB) and we have data on a maximum of 914. Personnel selection methodology offers a potential solution to this problem of restriction of range (Thorndike, 1949).

2. Correction for restriction of range is suggested only when the assumption of normality in the distribution of the restricted score is reasonable; in fact, the distribution of AIB scores in the applicant population was rectangular ($X = 8.1$, $S.D. = 4.9$). In addition, in the present study, one of the criterion variables (the dual criterion) is a binary criterion with probability of success of about .23; as p deviates from .50, assumption of normality are untenable. This suggests the last problem with calculating correlations: With dichotomous data the Pearson r becomes the point-biserial (r_{pb}) which is affected seriously when p deviates significantly from .50 (see Nunnally, 1967; Thorndike, 1949).

For these reasons the correlation coefficients were not corrected. In addition, the reader is cautioned to realize that the expectancy tables also represent relationships that may be affected in unknown (indirect) ways.

Results

Cluster Analyses

Figure 1 shows the errors associated with clustering old agent, assistant manager and manager perceptions. Because of the generally steep increase in error resulting from clustering beyond four clusters, four clusters were retained for each group.

Insert Figure 1 about here

Table 1 presents Ward and Hook and affirmation means, standard deviations and number of agencies for the clusters formed on the basis of manager perceptions of agency climate. Tables 2 and 3 present the same data for assistant manager and old agent perception of climate, respectively. Although the cluster analyses were calculated for each group separately, the Z-scores entering the process were based on calculations across all three groups. This results in deviations from the "mean of zero and S.D. of one" for each group. For this reason, at the bottom of each of Tables 1, 2 and 3 the overall mean and S.D. for each set of perceptions is presented. In almost every case (except for conflict where the reverse is true) managers perceive more of the climate characteristic than assistant managers, and assistant managers more than old agents. This finding has now been replicated in two other insurance company samples (Schneider & Bartlett, 19 ; Schneider & Snyder, 1974) and seems to be a generalizable phenomenon (Porter & Lawler, 1965).

Insert Tables 1, 2 and 3 about here

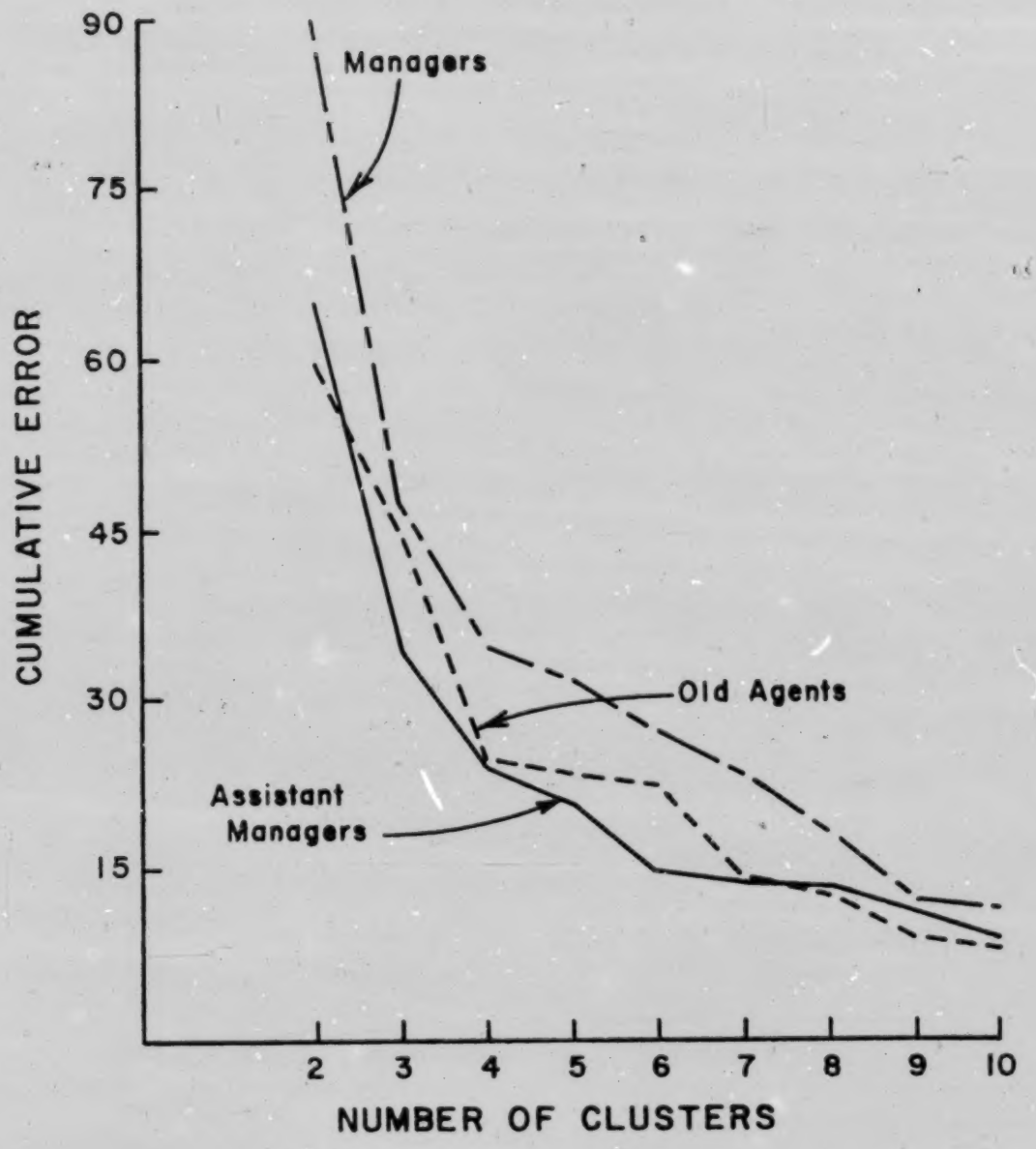

Fig. 1. Cumulative error associated with clustering agencies based on old agent, assistant manager and manager climate perceptions.

Table 1

Means, Standard Deviations, and Number of Agencies for Manager Clusters Based on Ward and Hook Output and Affirmation Procedure

	Support	Conflict	Structure	Concern	Autonomy	Morale
Ward & Hook						
Cluster One (N=37)						
Mean	-.02	.43	.79	.00	-.43	-.29
S.D.	.68	.71	.85	.83	.79	.75
Cluster Two (N=44)						
Mean	.16	-.65	-.73	-.25	-.04	-.90
S.D.	.60	.60	.96	.83	.71	.76
Cluster Three (N=38)						
Mean	1.05	-.85	.91	1.08	.90	1.22
S.D.	.53	.78	.90	.69	.76	.73
Cluster Four (N=12)						
Mean	.82	.10	-1.03	.73	1.28	.28
S.D.	.45	.90	1.03	.64	.56	.70
Affirmation						
Cluster One (N=33)						
Mean	-.18	.27	.75	.10	-.45	-.28
S.D.	.66	.70	.61	.79	.65	.63
Cluster Two (N=33)						
Mean	.17	-.67	-1.03	-.34	-.02	-1.03
S.D.	.53	.74	.72	.71	.70	.65
Cluster Three (N=35)						
Mean	1.07	-.77	1.00	1.00	.84	1.24
S.D.	.47	.67	.69	.68	.65	.68
Cluster Four (N=12)						
Mean	.86	.14	-.74	.85	1.12	.28
S.D.	.41	.88	.63	.57	.63	.70
Overall						
Mean	.44	-.37	.31	.39	.29	.17
S.D.	.77	.87	1.14	.98	.92	1.10

Table 2

Means, Standard Deviations, and Number of Agencies for Assistant Manager Clusters Based on Ward and Hook Output and Affirmation Procedure

	Support	Conflict	Structure	Concern	Autonomy	Morale
Ward and Hook						
Cluster One (N=18)						
Mean	-1.22	.79	-.30	-.86	-1.31	-.88
S.D.	.83	.79	.86	.77	.63	.80
Cluster Two (N=42)						
Mean	.69	-.42	.81	.88	.84	.81
S.D.	.43	.79	.63	.66	.70	.65
Cluster Three (N=51)						
Mean	.04	.30	.02	-.08	-.09	.07
S.D.	.40	.80	.62	.59	.62	.54
Cluster Four (N=21)						
Mean	.56	-.75	-.57	.52	.55	.20
S.D.	.31	.51	.55	.44	.55	.44
Affirmation						
Cluster One (N=18)						
Mean	-1.02	.72	-.15	-.76	-1.32	-.69
S.D.	.69	.66	.57	.70	.65	.57
Cluster Two (N=33)						
Mean	.79	-.38	.80	.81	1.03	.82
S.D.	.38	.63	.48	.68	.60	.62
Cluster Three (N=46)						
Mean	.04	.39	-.02	-.05	-.02	.09
S.D.	.42	.68	.60	.63	.53	.55
Cluster Four (N=20)						
Mean	.47	-1.02	-.55	.59	.46	.18
S.D.	.28	.54	.61	.48	.59	.45
Overall						
Mean	.17	.05	.19	.28	.16	.24
S.D.	.73	.85	.84	.83	.79	.76

Table 3

Means, Standard Deviations, and Number of Agencies for Old Agent Clusters Based on Ward and Hook Output and Affirmation Procedure

	Support	Conflict	Structure	Concern	Autonomy	Morale
Ward and Hook						
Cluster One (N=18)						
Mean	-1.56	1.70	-.65	-1.10	-.45	-.60
S.D.	.68	.65	.69	.68	.50	.51
Cluster Two (N=49)						
Mean	-.45	.20	-.22	-.52	-.39	-.04
S.D.	.41	.78	.57	.50	.63	.73
Cluster Three (N=29)						
Mean	.55	-.39	.20	.41	.36	.57
S.D.	.43	.90	.94	.59	.71	.74
Cluster Four (N=17)						
Mean	-2.37	1.09	-1.13	-1.87	-1.82	-1.76
S.D.	.89	.88	.64	.90	1.01	.72
Affirmation						
Cluster One (N=19)						
Mean	-1.57	1.63	-.66	-1.12	-.48	-.60
S.D.	.66	.69	.67	.66	.51	.49
Cluster Two (N=42)						
Mean	-.46	.22	-.20	-.53	-.39	-.13
S.D.	.42	.67	.58	.47	.53	.70
Cluster Three (N=27)						
Mean	.50	-.52	.11	.33	.46	.58
S.D.	.44	.75	.93	.60	.65	.64
Cluster Four (N=12)						
Mean	-2.28	1.02	-.93	-1.90	-1.99	-1.67
S.D.	.76	.79	.59	.69	.66	.66
Overall						
Mean	-.65	.36	-.21	-.58	-.47	-.28
S.D.	1.04	.98	.80	.96	1.02	1.00

The clusters reported on the basis of the Ward and Hook procedure show between-cluster differences and within-cluster homogeneity as represented by the S.D.'s for the profile points in the cluster being consistently less (by about one-third) than the overall S.D.'s reported at the bottom of the tables. In turn, the affirmation program increases between-group heterogeneity by further reducing within-cluster variance. This further reduction, however, is accomplished at the expense of a reduced number of agencies being clustered. Eighteen fewer agencies based on manager perceptions, 13 fewer agencies based on assistant manager, and 15 fewer agencies based on old agent perceptions, exist after the affirmation program than existed after the Ward and Hook procedure. The reductions in the number of agencies is about equally due to the identification of isolates and overlaps. At least one, but no more than three, misfits were also identified and re-assigned for each cluster analysis.

Table 4 presents a statistical summary of the within-cluster homogeneity and between-cluster heterogeneity after the affirmation process for managers, assistant managers and old agents. The table contains a matrix of distances (D^2). These distance indices result from comparing each agency profile in a cluster to the cluster profile it belongs to as well as to the profile of every other cluster (in item analysis terms, a part-whole relationship). The result is a matrix in which the diagonal represents average within-cluster homogeneity, and the upper and lower triangles represent the averages from the comparisons of each agency profile, against each cluster profile. Thus, reading down the first column in Table 4 one has the average of the D^2 that results when the

agencies in cluster one are compared against the cluster one profile, compared against the cluster two profile, cluster three profile, and cluster four profile. Reading down the second column, the agencies in cluster two are compared against the profile of cluster one, compared against the cluster two profile, cluster three profile and cluster four profile. The same process holds for columns 3 and 4. Because of this procedure, the upper and lower triangles are not identical, although they are highly similar.

Insert Table 4 about here

Generally speaking, at a minimum the within-cluster distances are three times smaller than the between-cluster distances. These distance matrices also show that there is more heterogeneity between clusters for old agents than exists in the manager and assistant manager clusters. Conversely, the most homogeneous clusters are the ones for assistant managers; manager clusters are the least internally consistent as separate clusters, but still clearly heterogeneous with respect to each other. One may conclude that the clusters have reasonable internal consistency and reasonable independence from each other.

The data on clustering has so far dealt with distances in a D^2 sense. While D^2 seems to be the single most inclusive index of profile similarity (Cronbach & Gleser, 1953; Nunnally, 1967), as Nunnally (1967) has noted, many social scientists are interested in profile shape. Thus, while shape alone (which disregards level and scatter of the profile) seems an inefficient basis for clustering profiles, the shape of the

Table 4

Average Within and Between Cluster Distances (D^2) When Each Agency Profile is Compared to Each of the Other Profiles for that Position

		Agency Profiles for Each Cluster				
		(1)	(2)	(3)	(4)	
Cluster Profiles	(1)	2.65	7.79	9.90	8.99	MANAGERS
	(2)	7.77	2.67	15.01	7.96	
	(3)	10.15	15.28	2.41	7.25	
	(4)	9.30	8.30	7.32	2.34	
Cluster Profiles	(1)	2.32	17.59	6.00	12.66	ASSISTANT MANAGERS
	(2)	17.09	1.91	6.10	4.56	
	(3)	6.40	6.09	1.92	4.56	
	(4)	13.50	5.02	5.03	1.45	
Cluster Profiles	(1)	2.18	5.94	16.62	7.67	OLD AGENTS
	(2)	6.21	1.91	6.25	13.98	
	(3)	16.09	5.44	2.71	29.92	
	(4)	7.18	13.21	29.96	2.67	

resultant cluster profiles are of psychological interest. Figure 2 presents the profiles for clusters based on manager perceptions. A brief discussion of these profiles now will prove useful later in discussing the results of the criterion analyses.

- - - - - - - - - - - - - - -
Insert Figure 2 about here
- - - - - - - - - - - - - - -

Figure 2, manager clusters, reveals three different shapes. Clusters two and four have essentially the same shape, but differ in level. Clusters one and three differ from each other and from clusters two and four. If one takes outstanding features of each profile into account, including both shape and level, and is willing to generalize, then the clusters based on manager-perceptions may be named as follows:

Manager Cluster One. The dominant feature of this cluster is the concentration on structure to the relative exclusion of the inter-personally-oriented features of the organization. While agencies in this cluster are not higher in structure than all other manager clusters, high structure combined with low Autonomy leads to the impression of an agency dominated by the manager. A tentative label might be Manager Dominant.

Manager Clusters Two and Four. The shapes of these clusters suggest agencies in which conflict and structure do not exist relative to the presence of the other dimensions. However, cluster four managers see their agents as having considerably more Autonomy, receiving more attention when they are new employees (Concern) and their being generally higher Morale than in cluster two. For these reasons, cluster four

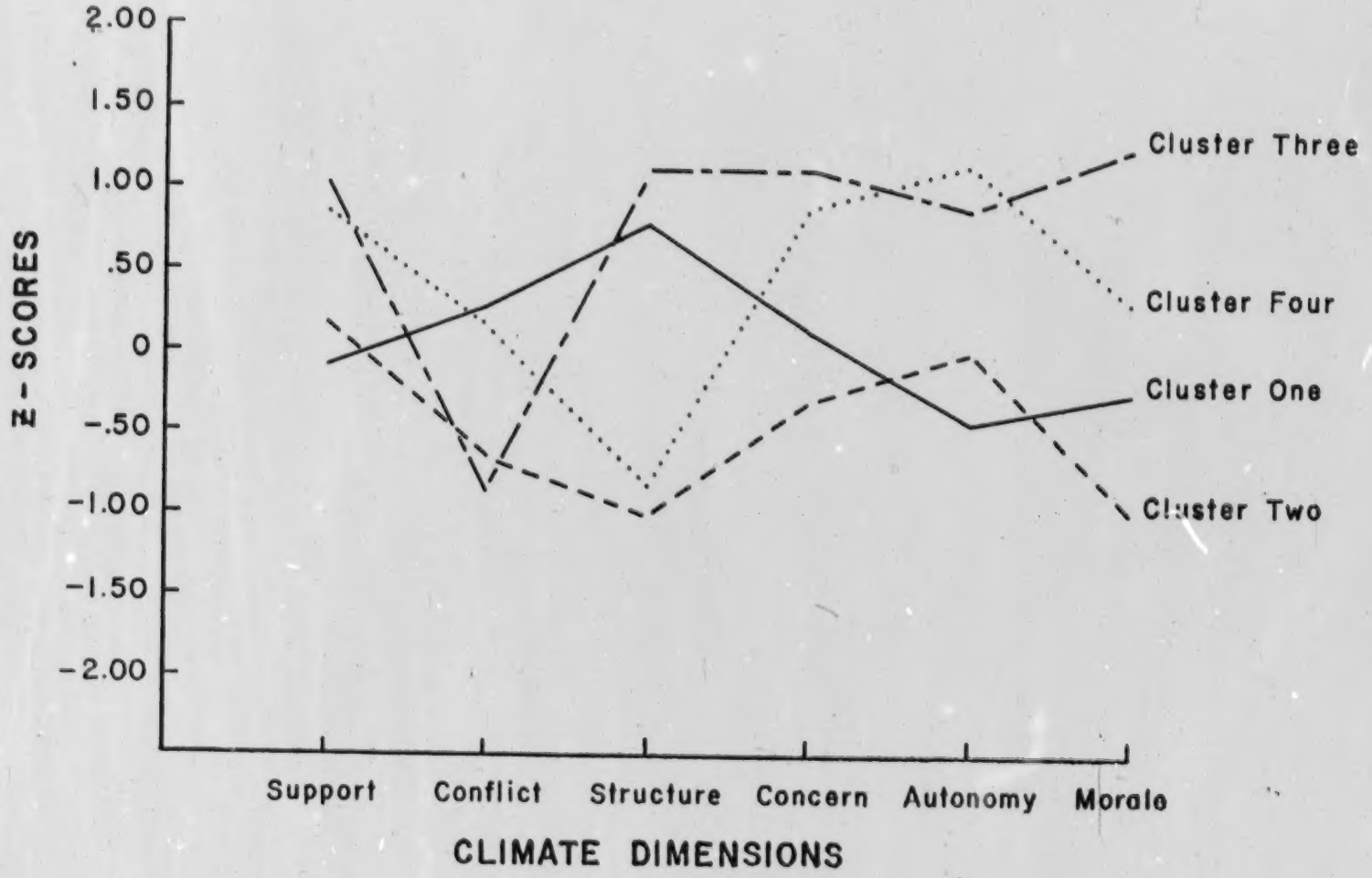

Fig. 2. Profiles for clusters based on manager climate perceptions.

could be called the Concern-for-Individual profile. Cluster two is difficult to label, but being the lowest of the clusters on three dimensions (Structure, Concern and Morale) and next to lowest in the other three, this seems to represent a cluster of agencies in which the managers perceive relatively little activity of any kind. This leads to the label Laissez-Faire.

Manager Cluster Three. A profile like this, one S.D. above the mean on each dimension (and below on Conflict) seems too good to be true. This cluster was called Theory Y/System 4 (McGregor, 1960; Likert, 1967, respectively).

Figure 3, Assistant Manager clusters, also reveals three different shapes. Clusters two and four have highly similar shapes, with cluster four being consistently lower in level. Cluster three represents the average on all dimensions since most profile points are very close to zero. Cluster one is seen as low on all dimensions (high on Conflict) and especially depressed on Autonomy (-1.32). These cluster profiles were named as follows:

- - - - - - - - - - - - - - -
Insert Figure 3 about here
- - - - - - - - - - - - - - -

Assistant Manager Cluster One. The first impulse is to label this Laissez-Faire, similar to Manager Cluster Two. However, the high Conflict combined with low Autonomy leads to the label Independence Conflict. Thus low perceived Autonomy seems to occur with high Conflict; perhaps some of the conflict is attributable to the lack of independence from the agency the assistant manager perceives people have.

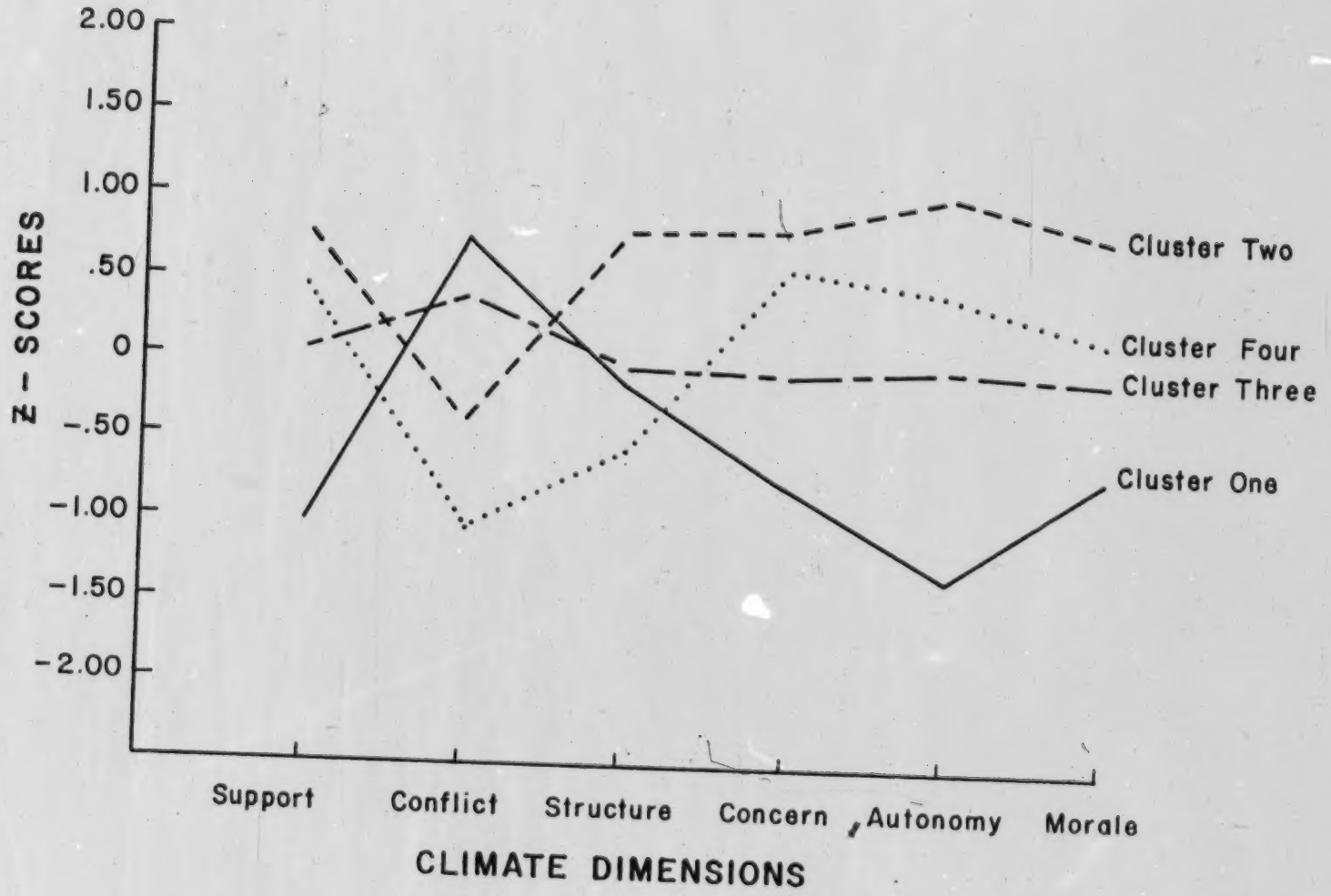

Fig. 3. Profiles for clusters based on assistant manager climate perceptions.

Assistant Manager Clusters Two and Four. Cluster two is the assistant manager equivalent of Theory Y for managers and it was labelled Theory Y/System 4. Cluster Four has the same shape but does not have the task emphasis (Structure) nor as much of the human relations orientation present in Cluster Two. Because of the quite low presence of Conflict, the low Structure, and the moderate human orientation, this was labelled Human Relations.

Assistant Manager Cluster Three. This cluster was labelled Typical Agency.

Figure 4 presents the cluster profiles based on Old Agent perceptions. Again three shapes seemed to emerge. Clusters one and four have similar shapes and are characterized by very low Support, Structure, Concern, Autonomy and Morale with very high Conflict. Cluster two is somewhat similar to one and four but has none of the extremes. Cluster three is the Theory Y/System 4 for Old Agents.

- - - - - - - - - - - - - - -
Insert Figure 4 about here
- - - - - - - - - - - - - - -

Old Agent Clusters One and Four. The more than two S.D. difference between Support and Conflict in Cluster One seems to dominate this profile, resulting in the label Conflict. Cluster Four could, generously, be called a Disaster so far as the old agents in those agencies are concerned.

Old Agent Cluster Two. This is the Typical Agency based on Old Agent perceptions, with 42 percent of all agencies falling in this cluster.

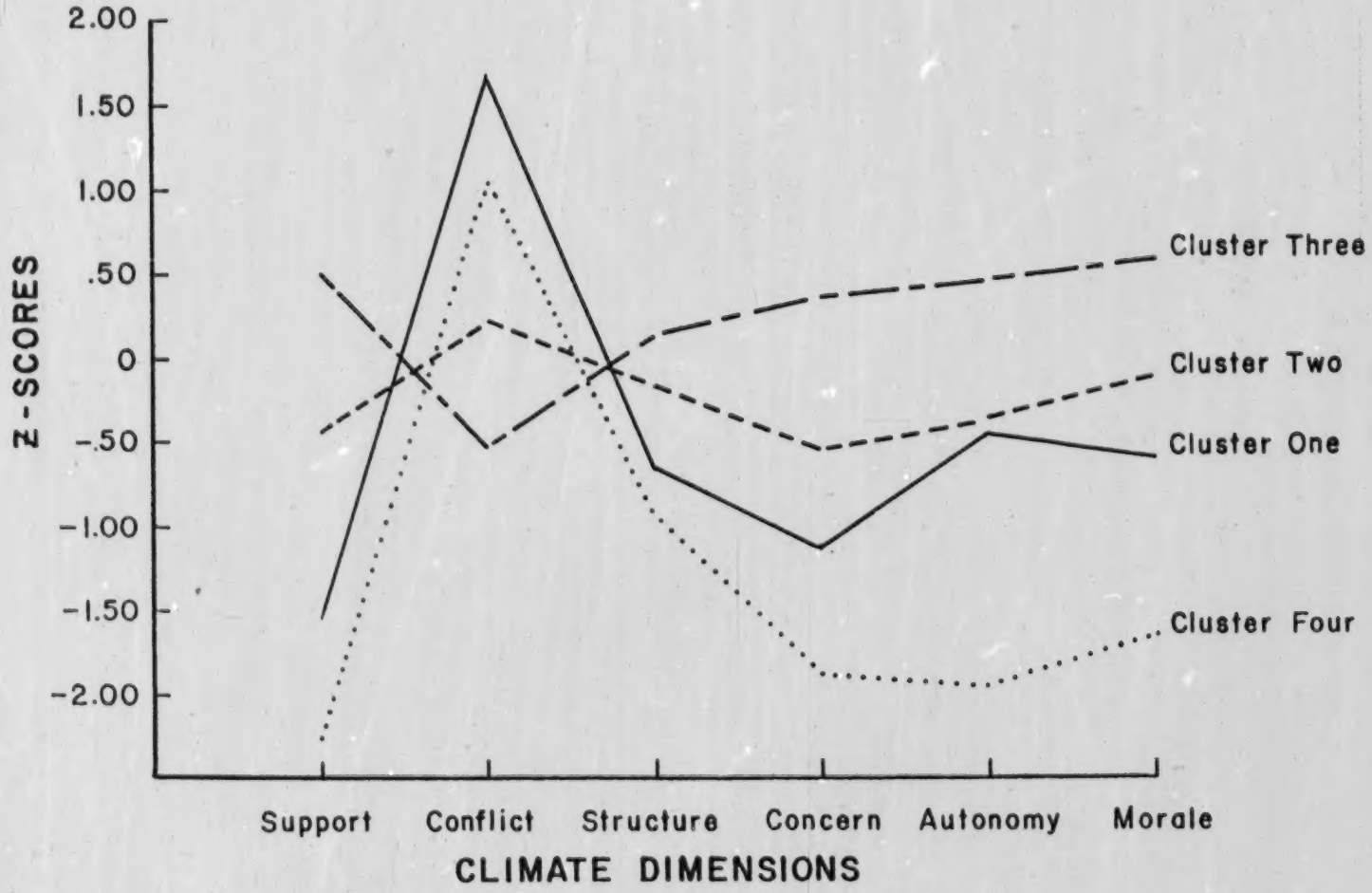

Fig. 4. Profiles for clusters based on old agent climate perceptions.

Old Agent Cluster Three. Already named as Theory Y/System 4.

New Agent Criteria in Different Clusters

Table 5 reports means, standard deviations and sample sizes for all new agent criterion data by cluster and for each position. Table 6 reports one-way ANOVA or X^2 analyses to test for significant overall effects of climate on new agent criterion performance. In addition, for each position, between-cluster multiple comparisons were run, utilizing Duncan's Multiple Range Procedure on the continuously distributed data (ordinary life sales) and X^2 on the binary data (percent staying and percent meeting dual criterion).

- - - - - - - - - - - - - - - - - -
Insert Tables 5 and 6 about here
- - - - - - - - - - - - - - - - - -

Manager clusters reveal no significant differences for new agent criteria. Based on assistant manager's perceptions, cluster one, Independence Conflict, retains significantly ($X^2 = 3.611$, $p < .07$) more new agents for one year (48 percent) than do cluster three, Typical, agencies (35 percent). This finding is not reflected in sales nor in the dual criterion; Independence Conflict agencies retain more people than other clusters but they do not sell more. Indeed, inspection of Table 5 reveals that, if anything, agents in a cluster four agency, Human Relations, will sell the most insurance in their first year ($320 Thousand). Table 5 also shows, again not significantly, that in the Human Relations cluster, a larger percentage of people are likely to meet the dual criterion of staying 12 months and producing above

Table 5

Criterion Data Means and Standard Deviations
(Sample Size for Each Cluster is Presented)

	New Agent Criteria							Agency Criteria[a]					
	% Staying 12 months		Ordinary Life Sales (Thous.)			% Staying Plus Selling		Average Production Rank			Average Agent Production		
	%	N	Mean	S.D.	N	%	N	Mean	S.D.	N	Mean	S.D.	N
Managers													
Cluster 1	34	201	283	288	142	23	142	81.7	44.9	28	707	534	28
Cluster 2	39	142	279	246	104	26	104	65.5	38.2	29	932	847	27
Cluster 3	41	223	304	285	166	23	166	68.9	41.2	31	840	539	31
Cluster 4	45	60	274	212	45	20	45	85.6	43.6	12	666	398	12
Assistants													
Cluster 1	48	82	256	255	55	18	55	88.0	37.9	15	696	413	15
Cluster 2	39	187	283	252	140	22	140	77.7	42.1	30	681	567	31
Cluster 3	35	312	307	294	219	25	219	60.9	42.2	44	873	584	44
Cluster 4	42	90	320	236	63	29	63	90.4	38.4	19	681	358	19
Old Agents													
Cluster 1	41	93	285	260	68	24	68	63.4	44.2	18	965	806	18
Cluster 2	37	280	275	249	196	20	196	50.8	37.9	38	1022	563	38
Cluster 3	45	150	345	312	111	30	111	79.9	29.7	26	887	704	26
Cluster 4	39	85	291	262	59	20	59	92.6	36.7	11	520	211	11
Overall[b]	39	914	283	261	661	22	661	73.5	41.3	163	850	585	165

[a] Sample size for Agency Criteria are the number of agencies in a cluster for which criterion data were available. For Average Agent Production, data are averages of averages, since each agency had about 15 premium producers and the average of those 15 was entered into the average for the cluster.

[b] Sample size presented for Overall will be greater than the sum of any column by position because Overall sample includes agents and agencies that did not fit one of the clusters during cluster analyses and/or for which no data was available, in the first place, to submit to the cluster process.

Table 6

Tests of Significance for Criterion Data

	New Agent Criteria		Agency Criteria		
	% Staying 12 months[a]	Ordinary Life Sales (Thous.)[b]	% Staying Plus Selling[a]	Average Production Rank[b]	Average Agent Production[b]
Manager Clusters					
Overall F or X^2	3.423, $p < .40$	.286, $p < .65$	.669, $p < .90$	1.178, $p < .35$	.829, $p < .50$
Multiple Comparison:					
1,2	n.s.	n.s.	n.s.	n.s.	n.s.
1,3	n.s.	n.s.	n.s.	n.s.	n.s.
1,4	n.s.	n.s.	n.s.	n.s.	n.s.
2,3	n.s.	n.s.	n.s.	n.s.	n.s.
2,4	n.s.	n.s.	n.s.	n.s.	n.s.
3,4	n.s.	n.s.	n.s.	n.s.	n.s.
Assistant Clusters					
Overall F or X^2	4.387, $p < .25$	.794, $p < .50$	2.125, $p < .40$	3.173, $p < .05$	1.129, $p < .35$
Multiple Comparison:					
1,2	n.s.	n.s.	n.s.	n.s.	n.s.
1,3	n.s.*	n.s.	n.s.	n.s.	n.s.
1,4	n.s.	n.s.	n.s.	n.s.	n.s.
2,3	n.s.	n.s.	n.s.	n.s.	n.s.
2,4	n.s.	n.s.	n.s.	n.s.	n.s.
3,4	n.s.	n.s.	n.s.	$p < .05$	n.s.
Old Agent Clusters					
Overall F or X^2	2.795, $p < .50$	1.659, $p < .20$	4.137, $p < .30$	5.25, $p < .01$	1.847, $p < .15$
Multiple Comparison:					
1,2	n.s.	n.s.	n.s.	n.s.	n.s.
1,3	n.s.	n.s.	n.s.	n.s.	n.s.
1,4	n.s.	n.s.	n.s.	n.s.*	n.s.
2,3	n.s.*	$p < .05$	n.s.*	$p < .01$	n.s.
2,4	n.s.	n.s.	n.s.	$p < .01$	$p < .05$
3,4	n.s.	n.s.	n.s.	n.s.	n.s.

[a] X^2 test overall and X^2 between cluster pairs

[b] One-way ANOVA overall, Duncan Multiple Range test between cluster pairs

* Significant at $p < .10$ for Duncan Multiple Range and X^2 or at $p < .05$ by simple t-test (where applicable).

the median for those staying 12 months.

Based on old agent perceptions, consistent differences in all three new agent criteria are found between cluster two (Typical Agency) and cluster three (Theory Y/System 4). For all three new agent criteria the Theory Y/System 4 cluster outperforms all clusters and does significantly better than the Typical Agency on percent staying 12 months (45 vs. 37 percent; $X^2 = 2.730$, $p < .07$), on dollar sales during first year ($345 vs. $275 thousand, $p < .05$) and percent meeting the dual criterion (30 vs. 20 percent, $X^2 = 3.816$, $p < .06$).

Although not presented in Table 5, it is important to note at this point that for all three new agent criterion measures, the between-position data are essentially identical. For manager's, assistant's and old agent's perceptions, respectively: (1) 39, 40 and 40 percent stay 12 months; (2) $290, $297 and $296 Thousand ordinary production; and (3) 23, 24 and 24 percent meet dual criterion. Since there is considerable overlap in the new agents making up these data, this is not too surprising. However, it will be recalled that the data on which old agent perceptions were based, reflected the perceptions of "successful, full-time agents". These agents may have come from a biased group of agencies. So far as new agent criteria are concerned, this does not seem to be true.

Agency Criteria in Different Clusters

As with new agent criteria, no significant differences based on manager clusters are reported (see Tables 5 and 6). For assistant manager clusters, a significant overall effect as a correlate of climate

on Average Production Rank is shown ($F = 3.173$, $p < .05$). Multiple comparison procedures revealed the effect is primarily accounted for by the difference in rank between cluster three, Typical Agency ($\bar{X} = 60.9$), and cluster four, Human Relations ($\bar{X} = 90.4$). This indicates that agencies in the Typical cluster produce significantly more gross business than those in Human Relations. It will be noted that this difference does not hold up significantly when examining the Average Agent Production column although the Typical Agency cluster is still the highest producing one.

For clusters based on old agent perceptions there is a significant effect on average production rank across clusters due to climate ($F = 5.250$, $p < .01$). This effect reveals that cluster four, Disaster, agencies have significantly lower average production rank ($p < .10$) than cluster one, Conflict, and significantly lower rank ($p < .01$) than cluster two, Typical Agency. In addition, cluster two, Typical Agency, has significantly higher average production rank ($p < .01$) than cluster three, Theory Y/System 4.

The significant difference between the Typical Agency cluster (two) and Disaster (four) holds up ($p < .05$) when analyzing Average Agent Production; there is a difference of almost $500,000 between clusters two and four, with cluster two the higher.

Comparison of the between <u>position</u> agency criteria data reveal some differences favouring agencies from which we obtained the old agent perceptions, but they are not significant. For old agent, assistant and manager data, respectively, the average production ranks are 66.9, 74.5 and 73.5; for average agent production the means are

$857, $768 and $806 thousand.

Predicting Individual New Agent Success

Data already presented demonstrate that new agent success probability can be predicted, somewhat, by knowing which type of agency the new agent joins (see Tables 5 and 6). A question still to be answered is who will succeed? This has been the traditional personnel selection question.

Table 7 presents correlational data relevant to testing whether climate moderates relationships between AIB and the various success criteria. Since prediction of the dual criterion (stay + sell) is the criterion for which the AIB was developed, these data are presented graphically in expectancy table format in Figure 5.

Insert Table 7 and Figure 5 about here

Figure 5 presents expectancy table data for each cluster, for all AIB-dual criterion (stay + sell) relationships in the current study, and for LIAMA data in a study of the AIB in use (LIAMA, 1973).[5] These LIAMA data were obtained under restriction of range problems comparable to those noted for the present data; it can be seen that the present data are consistent with LIAMA data (the LIAMA data are based on a sample of over 15,000 cases). There are a few cautionary statements to be made prior to examining Figure 5 and Table 7 in detail:

1. The data in Figure 5 and the correlations in Table 7 are based on restricted-range samples. As Peterson and Wallace (1966) have shown, such restriction of range yields "gloomy if statistically significant results".

Table 7

AIB-Criterion Relationships and AIB-Averages, By Cluster

	Correlations: AIB with						AIB: Cluster Data				
	Stay 12 months		Ordinary Life Sales		Stay + Sell		Mean	S.D.	N	F	Multiple Comparison
	r	N	r	N	r	N					
Across all Subjects	.04	640	.07	460	.08*	460	13.07	3.41	699	-	-
Managers										3.397*	
Cluster one	.02	161	.06	118	.13	118	13.30	3.11	154		2 vs. 3*
Cluster two	.23**	103	.21*	72	.27**	72	12.19	3.61	103		2 vs. 1*
Cluster three	.02	176	.10	129	.09	129	13.48	3.51	174		
Cluster four	-.14	39	-.03	30	-.18	30	13.04	3.27	49		
Assistant Managers										2.994*	
Cluster one	.03	58	-.09	38	.07	38	13.69	3.11	59		3 vs. 4*
Cluster two	.08	137	.18*	104	.08	104	13.40	3.14	135		
Cluster three	.09	236	.05	165	.09	165	12.76	3.39	342		
Cluster four	.09	69	-.01	45	.07	45	13.94	4.18	70		
Old Agents										1.117	n.s.
Cluster one	.04	75	.10	57	.06	57	13.12	3.48	76		
Cluster two	.06	218	.07	151	.10	151	13.28	3.53	222		
Cluster three	.12	112	.10	84	.26**	84	12.66	3.46	114		
Cluster four	-.07	67	-.03	46	-.01	46	13.51	3.09	67		

* $p < .05$

** $p < .01$

Note: Sample sizes for AIB Cluster Data will not necessarily be the same as data from Figure 5 and the sample sizes reported with the AIB-criterion correlation, because of missing data.

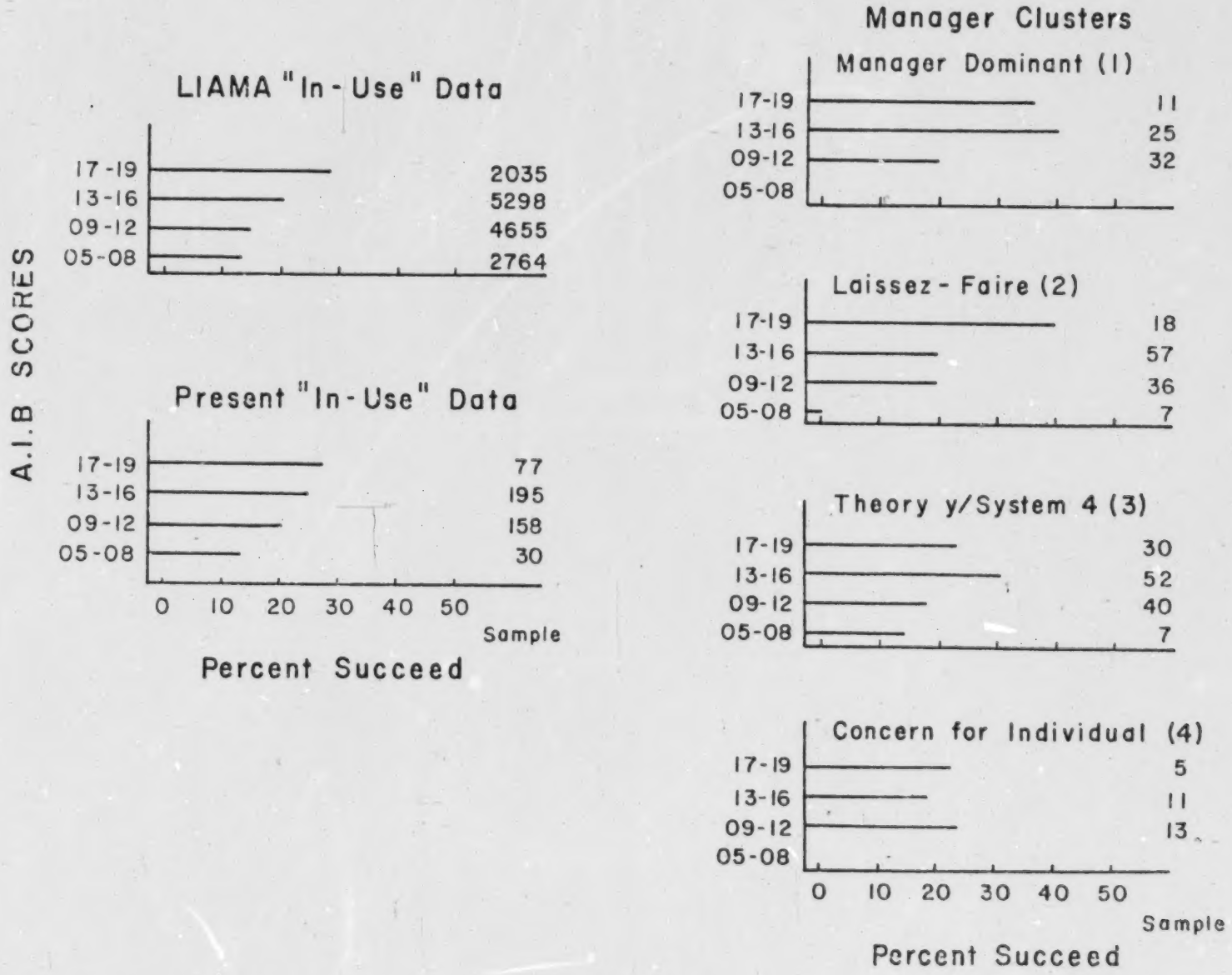

Figure 5. Percent who meet dual criterion (stay + sell) for various AIB scores for LIAMA "in-use" study, across all new agents in present study, and for each cluster.

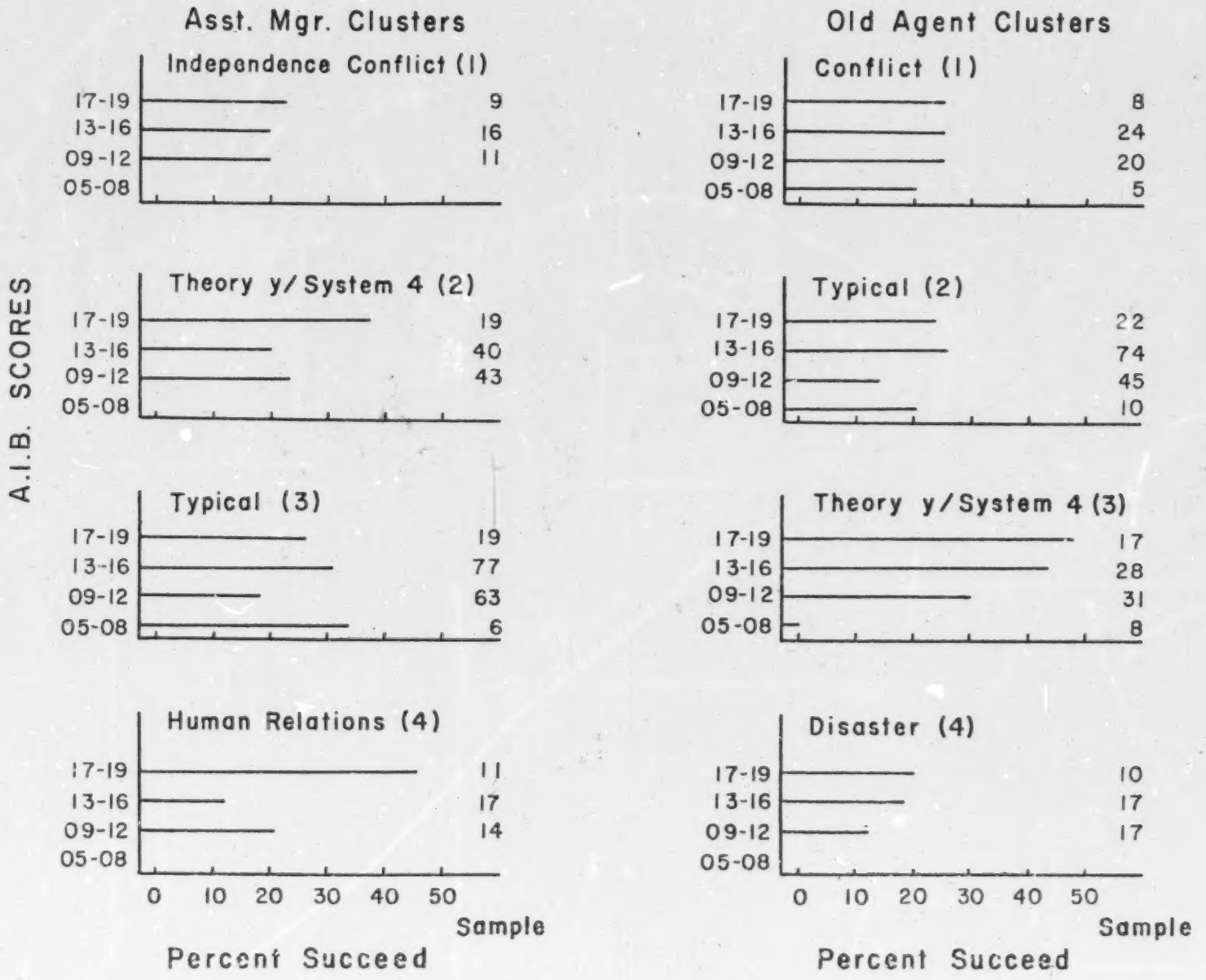

Figure 5 (cont.)

2. Clusters of agencies may differ in the average quality of the applicants they hire. These data are presented in Table 7 which indicates AIB means, standard deviations and sample for each cluster, as well as results of a one-way ANOVA (for each position across clusters) and Duncan Multiple Comparison procedure. There are no significant differences between clusters based on old agent perceptions, but for both manager and assistant manager perceptions significant overall F's were found; the multiple comparisons suggest the source of the differences. Comparing these data to criterion results presented in Tables 5 and 6 indicates that there is no general relationship between the average AIB scores in a cluster and the performance of the new agents in the cluster against the various success criteria; the same lack of relationships holds for the other agency level criteria.

3. In all cases where there were less than five cases on which to base a percentage, no data are presented in Table 5. This is not true for the correlations in Table 7.

Figure 5 shows that in some clusters of agencies the AIB-criterion relationships are stronger than in others. By "stronger" we mean that higher AIB scores yield higher probabilities of success and, in the same cluster, lower scores predict failure. Thus, none of the clusters based on assistant manager perceptions yield consistent kinds of predictive success. Correlations calculated for assistant manager clusters suggest all clusters yield essentially identical AIB-criterion relationships; see Table 7.

Conversely, for manager perceptions, cluster two, Laissez-faire, is closer to the classic staircase portrayal of an expectancy table.

Cluster four, Concern for Individual, presents almost a negative relationship. Correlational analyses, presented in Table 7, support these interpretations with the additional information that in clusters one, two and three results are positive [$r = .13$, $.27$ ($p < .05$) and $.09$, respectively] and indeed negative ($r = -.18$) in cluster four. Based on agent perceptions, two clusters - three (Theory Y/System 4) and four (Disaster) - reveal the staircase effect, but the Theory Y/System 4 cluster is clearly the strongest [$r = .26$ ($p < .05$) in cluster three and $r = .10$ (n.s.) in cluster four].

Table 7 reveals that the manager cluster two results extend to the prediction of turnover and sales, as well as the dual-criterion. The same cannot be said for Old Agent cluster three. One additional significant correlation is found: Assistant Manager cluster two (Theory Y/System 4) reveals a significant prediction of Ordinary Life Sales ($r = .18$, $p < .05$). In fact, of all the Assistant Manager clusters, this one reveals the most consistent pattern of predicting success with the AIB.

In the three sets of clusters, then, some moderating effects of climate on AIB/success relationships were found. In the discussion of results it will be shown that in a number of ways these data may represent three replications of the same phenomenon. In addition, other research evidence will be brought to bear on the problem, all of which may provide a meaningful theoretical framework for interpreting the findings.

Discussion

There were three foci of interest in this paper: clustering organizations, investigating various indices of organizational effectiveness in different clusters, and an examination of the potential moderating effects of organizational cluster on the predictor-criterion relationship.

Clustering Organizations

Scale score data from the ACQ are reliable enough to yield clusters of organizations that are each internally consistent and separately different from other clusters. The fact that organizations, in the present case - life insurance agencies, did cluster without the loss of too many agencies, indicates that organizations, like people, may be "typed" by a profile of the organization's characteristics. As shown in the moderator analysis, organization type may be an important variable when considering the application of different behavioral science strategies for bringing about change; either through personnel selection or, by implication, to such procedures as participation in decision-making or a performance-based reward system.

Dieterly and Schneider (1974), for example, have shown that participation in decision-making (in a laboratory situation) seems to result in different kinds of climate, depending upon such other organizational features as hierarchical level of the organization and primary goal of the organization. By extension, this suggests that certain climates that have already been established may prove more receptive to participation. With respect to performance-based reward

systems, Dachler & Mobley (1973), and Schneider and Olson (1970) have shown that the reward conditions already existing in an organization may affect the extent to which individual perceptions predict individual behavior.

Perhaps it is too soon to speak of the possibility of a typology of organizations, but it seems appropriate to make the following observations. To think about a typology of organizations based on one measure, or even a number of measures, would be to grossly oversimplify the magnitude of the complexity and diversity of organizational life. What will be required are ways of describing organizations with reference to particular characteristics. For example, organizations may be typed with respect to conditions existing for new employees (essentially the focus of the present measure), or with respect to reward systems, or leadership, or obsolescence, and so forth. The important element will be some a priori reason for the typology and a search of hopefully relevant dimensions for the typology (Frederiksen, et al., 1972). Perhaps an application of the critical incident technique to gathering information on organizations could be attempted. This procedure would direct that measures be developed containing (hypothetically) important characteristics for the phenomenon under consideration. On the basis of such a climate measure, organizations could be meaningfully clustered and the proliferation of omnibus climate measures of dubious value would be halted.

This is not to imply that organizations should be clustered on the basis of some criterion performance ("successful" vs. "unsuccessful") since, as Nunnally (1967) notes, this may be a sterile approach to

assessment. Naturally occurring clusters, rather than criterion -determined clusters, might offer the most complete range of organization types; then criterion performance similarities and differences may be investigated in relatively homogeneous clusters.

Organizational Effectiveness in Different Clusters

There were no significant main effects and no significant multiple comparisons based on manager perceptions. This obviously indicates that simply because organizations can be clustered on the basis of member perceptions does not mean they will differ in performance. Based on assistant manager perceptions, a significant relationship between climate cluster and Average Production Rank was found. Agencies in the Typical cluster (No. 3) were ranked significantly higher than agencies in the Human Relations cluster (No. 4); these data were also reflected, but not significantly, in Average Agent Production.

A similar finding was revealed for clusters based on old agent perceptions, again with respect to Average Production Rank. The highest ranking cluster of agencies was also called Typical (No. 2) and, by inspection of Figures 3 and 4, it can be seen that both clusters have essentially the same shape, the old agent cluster being somewhat lower on the Z-score axis. Indeed, a calculation of the overlap in agencies belonging to different clusters reveals that agencies belonging to the old agent Typical cluster are far more likely to belong to the assistant manager Typical cluster than to any other assistant manager cluster. Thus, agencies in the Typical old agent cluster belong to assistant clusters as follows:

1. Independence Conflict (No. 1) = 6 agencies (of 18)
2. Theory Y (No. 2) = 9 agencies (of 33)
3. Typical (No. 3) = 19 agencies (of 42)
4. Human Relations (No. 4) = 4 agencies (of 20)

These clusters tend to have the same level, shape, similar membership and to yield similar kinds of production performance; the results might be considered dependent replications, but replications nevertheless.

With respect to new agent criteria, essentially all the effects concern the new agent Theory Y/System 4 (No. 3) cluster. Although the effects are weak they are consistent, with Theory Y/System 4 agencies retaining a larger number of people who sell more insurance than cluster two (Typical) agencies. Two other findings make these data interesting: (1) the validity of the AIB in the Theory Y/System 4 cluster (to be discussed below); and (2) the fact that old agent cluster two (Typical) agencies are clearly the superior producing agencies. This may indicate some kind of independence between those agencies which do well in the training and retention of new agents and those which do well in other ways; i.e., in production of sales.

Figure 4 shows that these two clusters, based on old agent perceptions, are closer together than any other clusters but that the high producing agencies generate less support, concern, autonomy and morale accompanied by more conflict than those which do well with new agents. One may guess that both kinds of agencies are necessary for a company, but that such basic differences in orientation and success have not previously been identified. Given this information, home office management might be in a better position to capitalize on an

agency's strength. These data have essentially been cross-validated on another sample of agencies by Schneider & Snyder (1974).

Moderator Analyses

The validity of the AIB in the Theory Y/System 4 old agent and assistant manager clusters is easier to account for theoretically than the findings, very consistent findings, for the manager cluster, called Laissez-faire.

In both Theory Y/System 4 clusters, the shape and level of the profiles are highly similar (see Figures 3 and 4, clusters number 2 and 3, respectively). Conceptually, a Theory Y organization provides support and concern for the individual, as well as autonomy, and at the same time keeps conflict to a minimum; the emphasis is on the individual and the goal is providing an environment in which the individual can express his personality, interests and skills, as he or she pursues work goals (Hall & Schneider, 1973). Such an environment, especially with its' emphasis on training (Concern) should be precisely the situation in which individual differences become manifest and in which those most clearly appropriate for the situation are most likely to succeed, while those representing an inappropriate match are more likely to fail. A number of studies reveal this effect of a situation that expresses real concern for the individual, or indeed rewards the expression of individual differences, with the resultant improved capability to predict behavior based on ability measures.

For example, Forehand (1968) has shown that in an organization characterized by an emphasis on individual autonomy and initiative, compared

to an emphasis on following rules, the validity of ability measures for predicting peer ratings of innovative behavior, is quite different. In the autonomy condition, eight out of nine ability measures were positively and significantly related to peer's ratings, while in the rules conditions, none of the measures were significantly correlated with peer ratings.

Dunnette (1973), in a report on a series of studies conducted at the University of Minnesota, found some similar results although the kind of condition leading to the expression of individual differences was the financial reward system rather than the more global work situation. For our purposes, the most important findings concern the reward conditions under which ability differences are reflected in differential performance. In an over-reward condition and when workers were changed from a contingency reward to straight time-based reward, ability measures were not reflected in performance. When rewards were equitable and when they were tied to performance, performance was preditable with ability measures.

In both the Forehand (1968) and Dunnette (1973) papers, performance was a function of ability <u>given a certain environment</u>; performance was not a function of ability and environment <u>in interaction</u>. Other research supports this idea. For example, need for achievement (nAch) does not <u>interact with</u> environment in the prediction of behavior; <u>given</u> a particular kind of environment (competitive, entrepreneurial) nAch predicts performance (Atkinson & Feather, 1966). Similarly, the desire for various intrinsic rewards does not predict behavior at work unless the job and work conditions permit the expression of individual differences (Hackman & Lawler, 1971; Hall & Schneider, 1973; Schneider & Olson, 1970).

Schneider (1974) has elaborated on this argument and suggested that the Lewinian functional expression B = f (P, E) be changed to read B = f (P, given a particular kind of E) or B = f (P/E).

However, while the logic of the argument expressed above can account for the predictability of success in a Theory Y/System 4 environment as perceived by old agents and assistant managers, it does little to help understand the very consistent prediction of success in a Laissez-faire environment as perceived by managers. We do find that a Theory Y/System 4 agency based on old agent perceptions is more likely to also be a Laissez-faire agency based on manager perceptions. Thus, manager Laissez -faire agencies are distributed as follows among clusters based on old agent perceptions:

1. Conflict (No. 1) = 3 agencies (of 19)
2. Typical (No. 2) = 6 agencies (of 33)
3. Theory Y/System 4 (No. 3) = 9 agencies (of 27)
4. Disaster (No. 4) = 2 agencies (of 12)

However, these data are not very strong, although they are suggestive. Unfortunately a similar cross-tabulation of the way assistant manager Theory Y/System 4 agencies are distributed among clusters based on manager perceptions was less encouraging:

1. Manager Dominant (No. 1) = 8 agencies (of 33)
2. Laissez-faire (No. 2) = 6 agencies (of 33)
3. Theory Y/System 4 (No. 3) 11 agencies (of 33)
4. Concern for Individual (No. 4) = 2 agencies (of 12)

These cross-tabulations of agencies indicate some overlap in agencies

based on manager and old agent perceptions, but not on the basis of manager and assistant manager perceptions. However, the prediction of the success criterion the AIB was designed for (stay + sell) is strongest where the overlap does occur - between old agent and manager perceptions. We have already shown that the AIB is valid in the assistant manager cluster most similar to the old agent cluster in which the AIB is valid. However, explaining the very consistent validity of the AIB in the Laissez-faire manager cluster seems to require an extension of the theory underlying the validity in the Theory Y/System 4 old agent and assistant manager clusters.

The extension suggests that ability predicts success in an environment that has <u>almost no</u> contact with the person who's behavior is being predicted. This conceptualization requires the view that the two kinds of environments in which ability is most likely to predict behavior are when the environment (1) supports, encourages and rewards the display of individual differences, or (2) leaves the person alone. This second condition may be thought of as a <u>natural selection</u> environment in which the individual's adaptability is the best predictor of performance; adaptability is here defined as having the skills required to accomplish the task.

This natural selection model, of course, was the basis for a good portion of the Functionalism school of psychology, the growth of the study of individual differences, and the prediction of performance on the basis of "mental tests" (Boring, 1950; Murphy, 1949; Viteles, 1932). The problem with this model, as Dunnette (1966) has noted, was the assumption that man's behavior was predictable by knowing his

characteristics; that individual success was a function of individual ability alone.

Our analyses suggest that ability is, indeed, a useful predictor of performance when individual differences in ability are encouraged and rewarded, or when they are simply allowed to express themselves, with neither facilitation or inhibition; when a climate for the display of individual differences exists. The cautionary note required here is that the predictability of differential performance is not equivalent to the predictability of average level of performance. Thus, Theory Y/System 4 agencies based on old agent perceptions result in a larger proportion of people staying 12 months, staying plus selling, and significantly ($p<.05$) higher sales than the manager Laissez-faire cluster (see Tables 5 and 6). The same trend, incidentally, applies to the performance of the assistant manager Theory Y/System 4 agencies with regard to new agent criteria.

Perhaps it is only when the situation is viewed in a Theory Y /System 4 way by people already occupying the role that both level of performance and the predictability of performance will be high for new people. This inclusion of the role of the perceiver requires that a statement be made about the general level differences in clusters based on manager, assistant manager and old agent climate perceptions.

As noted earlier, this is a fairly consistent finding in life insurance agencies (Schneider & Bartlett, 1970; Schneider & Snyder, 1974) and elsewhere (Hall & Schneider, 1973; Payne, 1973), with people in higher positions generally perceiving more support, autonomy, concern, and so forth, in the work environment than those in lower positions.

Data suggests that while these level differences exist, correlations of the perceptions across positions may be significant (Schneider, 1972; Schneider & Snyder, 1974). This suggests the possibility of an adaptation level phenomenon affecting the level of perceptions more than the shape of perceptions. Further research on this phenomenon is clearly warranted.

Note that while there were differences in level of perceptions, one cannot say which set of profiles (manager, assistant manager, old agent) were "right" or "real". For each set, some criterion differences were found. This indicates that a more appropriate way of looking at these profile differences across positions is to think about which set of perceptions are valid for which particular criteria. We currently lack a conceptual framework in which we can make hypotheses regarding this matter.

Conclusion

The reader may be wondering about the considerable attention paid to a few correlations of .20 or .25, but they are important correlations for two reasons. First, they arise from heavily restricted samples and probably represent correlations of considerably greater magnitude. Indeed, Guilford (1965) notes that correlations sustaining the greatest loss in the restricted sample, are those with the highest correlation in the unrestricted sample. Second, personnel selection researchers have been hampered by the lack of some theory or construct for predicting the kinds of situations in which ability measures will work. Some personality theories have "tag-along" specification of the conditions under which the personality measure is useful (c.f. Atkinson & Feather,

1966; Vroom & Mann, 1960), but the picture for ability measures has been gloomy, at best, for understanding when a test will predict behavior (Guion, 1965).[7]

The efforts selection researchers have made have been directed at more precise job analyses, more reliable tests and more behaviorally oriented criteria, yet validity coefficients have not shown much improvement in the past 40-50 years. The present data, and other literatures we have referenced (and which Schneider (1974) covers in detail elsewhere), suggests the relatively simple hypothesis that when the expression of individual differences is supported and rewarded in the position or role the test is designed for, then the test will be a valid predictor of performance. This does not make job analysis, criterion development or test construction an easier chore; it requires the additional step of assessing the conditions existing in the work climate that facilitate or inhibit the display of the abilities the test measures.

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Footnotes

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2. At this writing, Fulbright Associate Professor of Psychology, Bar-Ilan University, Ramat-Gan, Israel.

3. Recently, Schneider and Snyder (1974) have replicated the low inter-role correlation, but have shown there to be more agreement on climate perceptions than on expressed satisfaction.

4. The cooperation of William Mobley, in providing the computer program used for the Ward and Hook analysis, and to Lyle Schoenfeld for supplying the affirmation procedure program, is gratefully acknowledged.

5. The company used in this paper is Company Y in Schneider (1972) and the company in Schneider and Bartlett (1969). Company X was utilized in Schneider and Bartlett (1970). Companies X and Y are

different from the two companies used in initial development of the A.C.Q. Company Z (a fifth company) is the basis for data in Schneider (1973), Schneider and Alderfer (1973), and Schneider and Snyder (1974).

6. The AIB score groupings are the same as those used by LIAMA (1973).

7. This is obviously a very broad view of ability, one not restricted to the notion of aptitude tests in their narrow meaning but to the broader concept of capability to adapt.

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